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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/765,323	01/26/2004	Yoshiyuki Shimamura	1232-5260	9424
27123	7590	11/30/2005		
MORGAN & FINNEGAN, L.L.P. 3 WORLD FINANCIAL CENTER NEW YORK, NY 10281-2101			EXAMINER UHLENHAKE, JASON S	
			ART UNIT	PAPER NUMBER
			2853	

DATE MAILED: 11/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

<b>Office Action Summary</b>	<b>Application No.</b> 10/765,323	<b>Applicant(s)</b> SHIMAMURA, YOSHIYUKI	
	<b>Examiner</b> Jason Uhlenhake	<b>Art Unit</b> 2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 4, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada et al (U.S. Pat. 6,359,701) in view of Arakawa et al (U.S. Pat. 6,067,101).

#### ***Yamada et al discloses:***

- ***regarding claim 1***, a printing apparatus which needs to periodically execute maintenance operation after activation (Column 18, Lines 24 – 26)
- nonvolatile storage means (Column 15, Lines 29 – 40)
- internal time counting means for counting up internal time on the basis of the time read out from timer means (Column 15, Lines 34 – 46)
- timer abnormality processing means for writing information representing occurrence of abnormality in said storage means (Column 18, Lines 26 – 30); setting predetermined time as the internal time, setting the predetermined time in timer means (Column 42, Lines 7- 11; Column 48, Lines 1 – 30); clearing the flag (Column 48, Lines 12 – 21)
- maintenance designation means for designating execution of the maintenance operation on the basis of the internal time (Column 18, Lines 24 – 26)

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- **regarding claim 2**, reset means for when the information representing occurrence of the abnormality is written in storage means upon reception of time information from connected host device, setting the received time information as the internal time (Column 48, 12 – 21); clearing the information representing occurrence of the abnormality (Column 48 12 – 21); setting the predetermined time in timer means (Column 42, Lines 7 – 11; Column 48, Lines 1 – 30)
- **regarding claim 4**, the apparatus comprises an inkjet printhead which discharges ink and prints (Abstract; Column 1, Lines 58 – 66)
- maintenance operation includes an operation of recovering discharge performance of printhead (Column 11, Lines 9 – 30; Column 46, Lines 38 – 44)
- **regarding claim 6**, a method of controlling a printing apparatus which needs to periodically execute maintenance operation after activation and has timer means, a counting stop of counting up internal time on the basis of time read out from the timer means (Column 15, Lines 34 – 46)
- abnormality process of when a flag is written in the register, writing information representing occurrence of the abnormality in nonvolatile storage means (Column 18, Lines 26 – 30); setting predetermined time as internal time, setting the predetermined time in the timer (Column 42, Lines 7- 11; Column 48, Lines 1 – 30); clearing the flag (Column 48, Lines 12 – 21)
- a maintenance designation step of designating execution of the maintenance operation on the basis of the internal time (Column 18, Lines 24 – 35)

***Yamada et al does not disclose expressly***

- **regarding claims 1 and 6**, having a register in which a flag is written when an abnormality occurs in a battery

***Arakawa et al discloses***

- **regarding claim 1 and 6**, having a register in which a flag is written when an abnormality occurs in a battery (Column 15, Lines 40 – 47)

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to incorporate the teaching of, regarding claims 1 and 6, having a register in which a flag is written when an abnormality occurs in a battery as taught by Arakawa et al into the device of Yamada et al. The motivation for doing so would have been to allow a quick and reliable judgment for detecting the voltage of the battery.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada et al (U.S. Pat. 6,359,701) in view of Miyazawa (U.S. Pat. 6,464,317).

***Yamada et al discloses all of the claimed limitations except:***

- **regarding claim 3**, where the battery of said timer means is so attached to be easily removed externally

***Miyazawa discloses:***

- **regarding claim 3**, where the battery of said timer means is so attached to be easily removed externally (Column 1, Lines 12 – 20)

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to incorporate the teaching of the battery of said timer means is so attached to be easily removed externally as taught by Miyazawa into the device of

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Yamada et al. The motivation for doing so would have been to allow for means for exchanging the battery with a charged battery to allow the printer to continue with its operation.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada et al (U.S. Pat. 6,359,701) in view of Rezanka (U.S. Pat. 5,751,302).

***Yamada et al discloses all of the claimed limitations except:***

- ***regarding claim 5***, printhead comprises a thermal transducer for generating thermal energy to be applied to the ink so as to discharge the ink by using the thermal energy

***Rezanka discloses:***

- ***regarding claim 5***, printhead comprises a thermal transducer for generating thermal energy to be applied to the ink so as to discharge the ink by using the thermal energy (Column 1, Lines 5 – 8, 55 – 67; Column 2, Lines 1 – 6)

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to incorporate the teaching of the printhead comprises a thermal transducer for generating thermal energy to be applied to the ink so as to discharge the ink by using the thermal energy as taught by Rezanka into the device of Yamada et al. The motivation for doing so would have been to cause an ink droplet to be ejected from an ink-ejecting orifice.

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**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Uhlenhake whose telephone number is (571) 272-5916. The examiner can normally be reached on Monday - Friday 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JSU  
November 4, 2005



K. PEGGINS  
PRIMARY EXAMINER